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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,932	09/08/2000	Nobutaka Wakamiya	19036/36615	2688

7590 04/15/2004

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6300 Sears Tower
233 South Wacker Drive
Chicago, IL 60606-6402

EXAMINER

MITRA, RITA

ART UNIT PAPER NUMBER

1653

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

09/600,932

Examiner

Rita Mitra

Applicant(s)

WAKAMIYA, NOBUTAKA09600932

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/28/2003.
2. ☒ The allowed claim(s) is/are 1,2,5,6,8,9 and 11-17.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

This is a supplemental to the office action dated March 16, 2004. New claims 15-17 have been added to the claims allowed in the original notice of allowability.

Status of the Claims

Applicants' amendment and response to office action dated June 24, 2003, filed on November 28, 2003 is acknowledged. Amendments to specification have been noted. Claims 3, 4, 7, 10 have been canceled. Claims 1, 2, 5, 8, 9, 11, 12, 13 have been amended. New claim 14 has been added and entered. Therefore, claims 1, 2, 5, 6, 8, 9, 11-14 are currently pending.

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Examiner's Amendments to the Specification

Continuing data has been entered on page 1, line 1, which reads as:
This application is a 371 of PCT/JP98/03328 filed on July 24, 1998.

Examiner's Amendments to the Claims

Claims have been amended to read as:

Claim 1 (twice amended): An isolated polynucleotide comprising a nucleotide sequence encoding the amino acid sequence [set out in] of SEQ ID NO: 2:
Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-
Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-
Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-
Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-

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Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Claim 2 (twice amended): An isolated polynucleotide comprising the nucleotide sequence 6-836 nucleotides of [set out in] SEQ ID NO: 1:

cagcaatgaa tggctttgca tccttgcttc gaagaaacca atttatcctc
ctgttactat ttcttttgca aattcagagt ctgggtctgg atattgatag
ccgtcctacc gctgaagtct gtgccacaca cacaatttca ccaggacca
aaggagatga tggtgaaaaa ggagatccag gagaagaggg aaagcatggc
aaagtgggac gcatggggcc gaaaggaatt aaaggagaac tgggtgatat
gggagatcgg ggcaatatlg gcaagactgg gccattggg aagaagggtg
acaaagggga aaaaggtttg cttggaatac ctggagaaaa aggcaaagca
ggtactgtct gtgattgtgg aagataccgg aaatttgtg gacaactgga
tattagtatt gcccggctca agacatctat gaagttgtc aagaatgtga
tagcagggat tagggaaact gaagagaaat tctactacat cgtgcaggaa
gagaagaact acagggaatc cctaaccac tgcaggattc ggggtggaat
gctagccatg cccaaggatg aagctgcaa cacactcatc gctgactatg
ttgccaagag tggcttcttt cgggtgttca ttggcgtgaa tgaccttgaa

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agggaggac agtacatgtt cacagacaac actccactgc agaactatag
caactggaat gagggggaac ccagcgaccc ctatggcat gaggactgtg
tggagatgct gagctctggc agatggaatg acacagagtg ccatcttacc
atgtactttg tctgtgagtt catcaagaag aaaaagtaac ttccctcatc
ctacgtattt gctattttcc tgtgaccgtc attacagtta ttgttatcca
tcctttttt cctgattgta ctacattga tetgagtcaa catagctaga
aaatgctaaa ctgaggtatg gagcctccat catcatgctc ttttgtgatg
attttcatat ttccacacat ggtatgttat tgaccaata actcgccagg
ttacatgggt ctgagagag aattttaatt actaattgtg cacgagatag
ttggtgtct atatgtcaaa tgagtgttc tcttggtatt tgctctacca
tctctcccta gagcactctg tctctatccc agtggataat ttccagttt
actggtgatg attaggaagg ttgtgatgg ttaggctaac ctgccctggc
ccaaagccag acatgtacaa gggctttctg tgagcaatga taagatcttt
gaatccaaga tgcccagatg tttaccagt cacacctat ggccatggct
atacttgaa gttctcctg ttggcacaga catagaaatg ctttaacccc
aagcctttat atgggggact tctagctttg tgtctgttt cagaccatgt
ggaatgataa atactctttt tgtgcttctg atctatcgat ttactaaca
tataccaagt aggtgctttg aaccctttc ttaggctca caccttaatc
tcaggccctt atatgtcac actttgattt aagaaaaacg gagcc.

Claims 3-4 (canceled)

Claim 5 (twice amended): An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a non-coding strand complementary to SEQ ID NO: 1 under the following hybridization conditions: hybridization at 55°C in a hybridization solution comprising 5 X SSC, 1% blocking agent, 0.1% N-lauroyl sarcosine and 0.02% SDS; and washing at 55°C in a wash solution comprising 2 X SSC; wherein the polynucleotide encodes a protein having anti-virus activity and [comprises] comprising: (1) a Ca²⁺-dependent carbohydrate recognition domain (CRD), (2) a neck region, (3) a collagen-like region, and (4) an N-terminal region containing cysteine.

Claim 6 (previously presented): The polynucleotide according to claim 1 wherein said polynucleotide is cDNA.

Claim 7 (canceled)

Claim 8 (twice amended): An isolated collectin protein [consisting of] comprising the amino acid sequence [set out in] of SEQ ID NO: 2:

Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Claim 9 (twice amended): An isolated collectin protein consisting of the amino acid sequence encoded by the nucleotide sequence 6-836 nucleotides of [set out in] SEQ ID NO: 1:

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cagcaatgaa tggctttgca tcttgcttc gaagaaacca atttatcctc
ctggtactat ttcttttgca aattcagagt ctgggtctgg atattgatag
ccgtctacc gctgaagtct gtgccacaca cacaattica ccaggacca
aaggagatga tggtgaaaaa ggagatccag gagaagaggg aaagcatggc
aaagtgggac gcatggggcc gaaaggaatt aaaggagaac tgggtgatat
gggagatcgg ggcaatattg gcaagactgg gccattggg aagaagggtg
acaaagggga aaaaggtttg cttggaatac ctggagaaaa aggcaaagca
ggtactgtct gtgattgtgg aagataccgg aaatttgtg gacaactgga
tattagtatt gccggctca agacatctat gaagttgtc aagaatgtga
tagcagggat tagggaaact gaagagaaat tctactacat cgtgcaggaa
gagaagaact acagggaatc cctaaccac tgcaggattc ggggtggaat
gctagccatg cccaaggatg aagctgcaa cacactcgc gctgactatg
ttccaagag tggcttctt cgggtgttca ttggcgtgaa tgacctgaa
agggagggac agtacatgtt cacagacaac actccactgc agaactatag
caactggaat gagggggaac ccagcgacc ctatggtcac gaggactgtg
tggagatgct gagcctggc agatggaatg acacagagtg ccacttacc
atgtactttg tctgtagtt catcaagaag aaaaagtaac ttccctcgc
ctacgtattt gctattttcc tgtgaccgc attacagta ttgttatcca
tctttttt cctgattgta ctacattga tctgagtcaa catagctaga
aaatgctaaa ctgaggatg gagcctccat catcatgctc tttgtgatg
atttcataat ttacacacat ggtatgttat tgaccaata actcgccagg
ttacatgggt cttgagagag aattttaatt actaattgtg cacgagatag
ttggttgtct atatgtcaaa tgagttgtc tcttggtatt tgcctacca
tctctccta gagcactctg tgcctatccc agtggataat ttcccagttt
actggtgatg attaggaagg ttgttgatgg ttaggctaac ctgccctggc
ccaaagccag acatgtacaa gggctttctg tgagcaatga taagatctt
gaatccaaga tgcccagatg tttaccagt cacaccctat ggccatggct
atacttgaa gttctccttg ttggcacaga catagaaatg ctttaacccc
aagcctttat atgggggact tctagctttg tgtctgttt cagaccatgt
ggaatgataa atactcttt tgtgcttctg atctatcgat ttactaaca

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tataccaagt aggtgcttg aaccctttc tgtaggtca caccttaatc
tcaggccct ataatgtcac actttgattt aagaaaaacg gagcc.

Claim 10 (canceled)

Claim 11 (twice amended): The isolated collectin protein according to [C] claim 8 or 9, wherein the protein comprises: (1) the Ca^{2+} -dependent carbohydrate recognition domain [comprises] comprising amino acid 1 to 46 of SEQ ID NO: 2, (2) the neck region [comprises] comprising amino acid 47 to 118 of SEQ ID NO: 2, (3) the collagen-like region [comprises] comprising amino acid 119 to 147 of SEQ ID NO: 2, and (4) the N-terminal region containing cysteine [comprises] comprising amino acid 148 to 227 of SEQ ID NO: 2.

Claim 12 (twice amended): A method for isolating a polynucleotide encoding the collectin protein according to claim 8 or 9 comprising the steps of:

- (i) preparing a probe which is complementary to the nucleotide sequence [set out in] of SEQ ID NO: 1;
- (ii) hybridizing the probe with a candidate polynucleotide at 55°C in a hybridization solution comprising 5 X SSC, 1% blocking agent, 0.1% N-Lauroyl sarcosine and 0.02% SDS;
- (iii) washing the unhybridized probe at 55°C in a wash solution comprising 2 X SSC;
- and (iv) isolating the hybridized polynucleotide.

Claim 13 (twice amended): An isolated polynucleotide, which is complementary to the isolated polynucleotide [according to] of [C]claim 5.

Claim 14 (currently amended): An isolated collectin protein comprising the amino acid sequence of SEQ ID NO: 2 wherein said amino acid sequence further comprises deletion, substitution and/or addition of (1) one to ten amino acid residue(s) in the Ca^{2+} -dependent carbohydrate recognition domain, amino acids 1 to 46 of SEQ ID NO: 2, (2) one to ten amino acid residue(s) in the neck region, amino acids 47 to 118 of SEQ ID NO: 2, (3) one to fifteen amino acid residue(s) in the collagen-like region comprises amino acids 119 to 147 of

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SEQ ID NO: 2, and (4) one to twenty amino acid residue(s) in the N-terminal region containing cysteine comprises amino acids 148 to 227 of SEQ ID NO: 2, wherein said collectin protein has anti-virus activity.

Please add the following new claims:

Claim 15 (New): An isolated polynucleotide consisting of the nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2: Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Claim 16 (New): The polynucleotide according to claim 15 wherein said polynucleotide is cDNA.

Claim 17 (New): An isolated collectin protein consisting of the amino acid sequence of SEQ ID NO: 2:

Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Lynn Janulis on March 22, 2004.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest an isolated collectin protein, wherein the protein is encoded by a polynucleotide sequence set forth in SEQ ID NO: 1, which encodes the amino acid sequence of SEQ ID NO: 2. Further the protein comprises (1) the Ca²⁺ dependent

carbohydrate recognition domain comprising amino acid 1 to 46 of SEQ ID NO: 2, (2) the neck region comprising amino acid 47 to 118 of SEQ ID NO: 2, (3) the collagen-like region comprising amino acid 119 to 147 of SEQ ID NO: 2, and (4) the N-terminal region containing cysteine comprising amino acid 148 to 227 of SEQ ID NO: 2, wherein said collectin protein has anti-virus activity.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

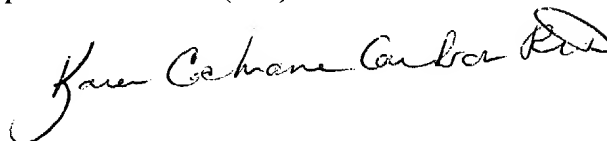
Claims 1,2, 5, 6, 8, 9, 11-17 are allowed.

Inquiries

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rita Mitra whose telephone number is (571) 272-0954. The Examiner can normally be reached from 9:30 a.m. to 6:30 p.m. on weekdays. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Christopher Low, can be reached at (571) 272-0951. Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Fax Center number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-0547.



Rita Mitra, Ph.D.
April 13, 2004



KAREN COCHRANE CARLSON, PH.D.
PRIMARY EXAMINER